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## REMARKS

Claims 12-19 and 26-29 stand rejected as being unpatentable over U.S. Pat. No. 5,638,273 (hereinafter Coiner) in view of U.S. Pat. No. 6,295,492 (hereinafter Lang). Claims 12, 17 and 26 stand objected to because of lack of clarity perceived by the Examiner regarding the phrase "mobile asset degradation". Reconsideration of the rejections and objections is solicited in view of the foregoing amendments and the following remarks.

Claims 12, 17 and 26 have been amended as suggested by the Examiner to further enhance their clarity. Applicant respectfully submits that the claim language is sufficiently clear to comply with the statutory requirements of 35. U.S.C. 112, second paragraph and requests that the objections to claims 12, 17 and 26 be withdrawn.

## Coiner Is Of Limited Relevance

Coiner, the main reference applied by the Examiner to reject claims. describes a vehicle data storage system that includes an on-board computer control device, which collects and records data supplied to it from a variety of sensors. The device provides for storing operational data at one frequency (i.e., one sampling frequency) while storing data surrounding an incident at a higher frequency (i.e., a higher sampling frequency). See Abstract of Coiner. A problem that Coiner purports to address relates to limited memory capacity for storing data in an onboard device. See Coiner, column 1, line 30 et. seq. Coiner further explains that the dual sampling frequency used in his device provides the user with both low-resolution operational data covering a long period of time, and high-resolution incident data for incidents designated as being potential faults. See Coiner, column 2, line 56 et. seq. After the onboard device has recorded the data, the data may be transferred to another computer for storage and analysis.

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However, even upon a careful reading of Colner, the applicant could not find any detailed description or relevant teaching in Coiner regarding any analysis of the faults and/or the data associated with the faults so as to rank or rate the criticality of the faults. This is not surprising since Coiner's consistent theme throughout his specification is the purported ability to sample data at two distinct sampling frequencies based on a desired sampling resolution. Nowhere is Coiner concerned with classifying unranked fault data that may be collected from a fleet of mobile assets in order to, for example, identify a smaller set of faults, such as critical faults, that deserve a higher level of attention. For example, such faults could imminently result in a mission failure for the mobile asset. It is respectfully submitted that one of ordinary skill in the art would not find in Coiner any relevant teachings or suggestions for the fault classification (e.g., sorting) techniques provided by the present invention. Coiner may well be useful for solving its intended limited problem (data sampling at a selectable sampling frequency) for saving memory storage but Coiner should not be unduly extended beyond its limited capabilities.

Claim 12 is directed to a method for Identifying critical faults in unranked fault data collected from a fleet of mobile assets. That is, inter alia applicant is concerned with identifying critical faults from a universe of unranked (e.g., unclassified) faults. The critical faults may be indicative of a malfunction that, for example, would indicate imminent complete loss of operational capability of the mobile asset. This fault identication or classification is important because instead of reacting with the same level of urgency to every possible fault that may occur, aspects of the claimed invention allow focusing on specific faults based on their respective classification. Claim 12 sets forth the following criteria for classifying the unranked fault data:

- 1. Relative frequency of fault occurrence;
- 2. Number of mobile assets affected in the group; and

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3. Expected level of degradation of mobile asset operational performance.

Claim 12 further sets forth operational relationships (e.g., basis) for using the foregoing classifying criteria. Coiner nowhere teaches or suggests criteria for classifying faults from unranked fault data collected from a fleet of mobile assets, much less teaches or suggests any relationships for utilizing such criteria. As discussed above, Coiner is merely concerned with choosing a sampling frequency that may be appropriate for obtaining a desired resolution and meeting data storage constraints. The only common item that applicant can discern between claim 12 and excerpts of Coiner cited by the Examiner is the appearance of the word "frequency." However, the use of the term "frequency" in claim 12 of the present application relates to the frequency of fault occurrences as a measure of their criticality and as such has nothing to do with the frequency at which data samples are taken as in Coiner. In that regard, Coiner simply uses a first sampling frequency for normal operational data, and a higher sampling frequency for data surrounding an incident or triggering event. Coiner nowhere teaches or suggests classification criteria regarding the nature of the data surrounding the incident or triggering event. Applicant respectfully submits that Coiner is not applicable to the structural and operational relationships recited in claim 12 since the excerpts of Coiner that allegedly obviate claim 12 merely describe the distinct sampling frequencies techniques discussed above. However, this has nothing to do with the concepts set forth in claim 12.

## Lang Fails To Remedy the Shortcomings of Coiner

Lang appears to be cited for the tangential purpose of teaching a database. Accordingly, Lang fails to overcome the fundamental deficiencies discussed above regarding Coiner. In view of the foregoing remarks, it is respectfully asserted that the Coiner/Lang references, singly or in combination, fail to teach or suggest the structural and/or operational relationships recited in

claim 12. Accordingly, it is respectfully submitted that the Coiner/Lang combination fails to render obvious claim 12 under the statutory standards of §103. Since each of the dependent claims from independent claim 12 includes the structural and/or operational relationships respectively recited in such independent claim, it is also respectfully submitted that the Coiner/Lang combination also fails to obviate each of such dependent claims.

Claim 17 is directed to a system for identifying critical faults in unranked fault data collected from a fleet of mobile assets. Claim 17 specifically recites first, second and third classifiers that in combination allow classifying a fault as likely to result in an imminent mobile asset mission failure. It is respectfully asserted that the Colner/Lang references, singly or in combination, fail to teach or suggest the structural and/or operational relationships recited in claim 17. Accordingly, it is respectfully submitted that the Coiner/Lang combination fails to render obvious claim 17 under the statutory standards of §103. Since each of the dependent claims from independent claim 17 includes the structural and/or operational relationships respectively recited in such independent claim, it is also respectfully submitted that the Coiner/Lang combination also fails to obviate each of such dependent claims.

Claim 26 is directed to a system for identifying critical faults in unranked fault data collected from a fleet of mobile assets. Claim 26 recites a processor configured to classify respective faults in the collected mobile asset data based on specifically recited criteria and operational relationships set forth therein. It is respectfully asserted that the Coiner/Lang references, singly or in combination, fail to teach or suggest the structural and/or operational relationships recited in claim 26. Accordingly, it is respectfully submitted that the Coiner/Lang combination fails to render obvious claim 26 under the statutory standards of §103. Since each of the dependent claims from independent claim 26 includes the structural and/or operational relationships respectively recited in such

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independent claim, it is also respectfully submitted that the Coiner/Lang combination also fails to obviate each of such dependent claims.

It is respectfully submitted that each of the claims pending in this application recites patentable subject matter and it is further submitted that such claims comply with all statutory requirements and thus each of such claims should be allowed.

The applicant appreclates the Examiner's efforts for conducting a thorough examination, and cordially invites the Examiner to call the undersigned attorney if there are any outstanding items that may be resolved via telephone conference.

DATED this 20th day of October, 2004.

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Respectfully submitted,

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